

Figure 1.

Name: SW_ROD_KIME_MOUSE	oo	Len: 468	Check: 7988	Weight: 1.00
Name: SW_ROD_KIME_RAT	oo	Len: 468	Check: 7364	Weight: 1.00
Name: SW_HUM_KIME_HUMAN	oo	Len: 468	Check: 8275	Weight: 1.00
Name: SW_OTHER_KIME_PYRAB	oo	Len: 468	Check: 8911	Weight: 1.00
Name: SW_OTHER_KIME_PYRHO	oo	Len: 468	Check: 673	Weight: 1.00
Name: SW_OTHER_KIME_PYRFU	oo	Len: 468	Check: 8129	Weight: 1.00
Name: SW_OTHER_KIME_ARATH	oo	Len: 468	Check: 9149	Weight: 1.00
Name: SW_OTHER_KIME_METTH	oo	Len: 468	Check: 6345	Weight: 1.00
Name: SW_OTHER_KIME_ARCFU	oo	Len: 468	Check: 5101	Weight: 1.00
Name: SW_OTHER_KIME_AERPE	oo	Len: 468	Check: 3583	Weight: 1.00
Name: SW_OTHER_KIME_SCHPO	oo	Len: 468	Check: 9129	Weight: 1.00
Name: SW_OTHER_KIME_YEAST	oo	Len: 468	Check: 1853	Weight: 1.00
Name: SW_OTHER_KIME_METJA	oo	Len: 468	Check: 8449	Weight: 1.00
Name: PARACOCCLUS	oo	Len: 468	Check: 7087	Weight: 1.00

//

SW_ROD_KIME_MOUSE	..MLSEALLV	SAPGKVLHG	EHAVVHGKVA	LAAALN.LRT	FLLLRP....
SW_ROD_KIME_RAT	..MLSEVLLV	SAPGKVLHG	EHAVVHGKVA	LAVALN.LRT	FLVLRP....
SW_HUM_KIME_HUMAN	..MLSEVLLV	SAPGKVLHG	EHAVVHGKVA	LAVSLN.LRT	FLRLQP....
SW_OTHER_KIME_PYRAB	...MPRLVLA	SAPAKVILFG	EHSVVYKPA	IASAID.LRT	VYRAEF....
SW_OTHER_KIME_PYRHO	...MKYVLA	SAPAKVILFG	EHSVVYKPA	IASAIE.LRT	VYRAQF....
SW_OTHER_KIME_PYRFU	...MKVIA	SAPAKVILFG	EHSVVYKPA	IAAALD.LRT	FVEAEL....
SW_OTHER_KIME_ARATH	...MEVKA	RAPGKILAG	EHAVVHGSTA	VAAALD.LYT	YVTLRFPPLPS
SW_OTHER_KIME_METTH	...MKSSA	SAPAKVILFG	EHSVVYKPA	IAAALD.LRT	TVTVSE....
SW_OTHER_KIME_ARCFU	...MIA	SAPGKILFG	EHAVVYGRHA	VVSAIN.LRC	RVSVRK....
SW_OTHER_KIME_AERPE	...MRAARA	SAPGKIVIVG	EHFVVRGSLA	IVAAIG.RRL	RVTVRS....
SW_OTHER_KIME_SCHPO	...MSKSLIV	SSPGKILFG	EHAVVYGATA	LAAAVS.LRS	YCKLOT....
SW_OTHER_KIME_YEAST	...MSLPFLT	SAPGKIVIFG	EHSVYKPA	VAASVSALRT	YLLISE....
SW_OTHER_KIME_METJA	...MII	ETPSKVILFG	EHAVVYGYRA	ISMAID.LTS	TIEIKETQ....
PARACOCCLUS	MSTGRPEAGA	HAPGKILSG	EHSVLYGAPA	LAMAIA.RYT	EVWFETP....

Numbering

SW_ROD_KIME_MOUSE
SW_ROD_KIME_RAT
SW_HUM_KIME_HUMAN
SW_OTHER_KIME_PYRAB
SW_OTHER_KIME_PYRHO
SW_OTHER_KIME_PYRFU
SW_OTHER_KIME_ARATH
SW_OTHER_KIME_METTH
SW_OTHER_KIME_ARCFU
SW_OTHER_KIME_AERPE
SW_OTHER_KIME_SCHPO
SW_OTHER_KIME_YEAST
SW_OTHER_KIME_METJA
PARACOCCLUS
Numbering

..QSNKGVSVN LPNIGIKQVW DVGML...QR LDTSFLEQGD VSVPTLE.QL
..QSNKGVSVN LPNIGIKQVW DVATL...QL LDTSFLEQGD VPAPLE.QL
..HSNGKVDLS LPNIGIKRAW DVARL...QL LDTSFLEQGD VTTPTSE.QV
..NDSGNKIE AHDIKTP...G LIVSFSED...KIYFET.DY
..NDSGNKIE AHDIKTP...G LIVSFSED...KIYFET.DY
..IREKKIRIE AHDIKVP...G LTVSFSEN...EYFET.DY
AENNDRLTLQ LKDISLEFSW SLARIKEAIP YDSSTLCR...STPASC.SE
...SSSTHVT IPSLGR...H SSER...
...SDRFLI RSSLGES...G LDYQ...
...GGKGVLE SSMLGRHS...AP LPGQ...
..TNNNEIIV MSDIGTERRW N...LQS LPWQHVTVEN VQHPASSPNL
SSAPDTIELD FPDISPNNHW SINDFNAITE DQVNSQKLAK AQAATDGLSQ
...EDEIILN LNDLNKS...LG LNLNBIKN...INPN...NF
LGIGEGIRTT FANLSGGATY S...LK LLSGFKSRLD RRFQFLNGD
46 88

SW_ROD_KIME_MOUSE
SW_ROD_KIME_RAT
SW_HUM_KIME_HUMAN
SW_OTHER_KIME_PYRAB
SW_OTHER_KIME_PYRHO
SW_OTHER_KIME_PYRFU
SW_OTHER_KIME_ARATH
SW_OTHER_KIME_METTH
SW_OTHER_KIME_ARCFU
SW_OTHER_KIME_AERPE
SW_OTHER_KIME_SCHPO
SW_OTHER_KIME_YEAST
SW_OTHER_KIME_METJA
PARACOCCLUS
Numbering

EKLKKMGDLF RD.RAGNEGM ALLA...FLY LYLAICRKQR TLFSLDMVW
EKLKKVAGLP RD.CVNEGL SLLA...FLY LYLAICRKQR TLFSLDIMVW
EKLKEVAGLP DD.CAVTERL AVLA...FLY LYLSICRKQR ALPSLDIVW
GKAAEVLSTV R...HA...IEL VLEADKR...TGVSVSIT
GKAAEVLSTV R...YA...IEL ALESDKR...VGIDVSIT
GKAAEVLSTV R...EA...INL VLEADKKN...VGKVSIT
ETLKSTIAVLV EEQNLPKEKM WLSS...GIS TFLWLYTRII GFNPATVVIN
P.SGGILDYI G...R...CLE LYHDAS...PLDIRVE
R.HFYVVQAV K...R...RFGELRN...IPGAEIEIE
GAAAKVSPVL EP...YIA VLRSLAARGY SVVPHTILVE
DLLQGLGELL KNEENGLIHS AMLC...TLY LFTSLSSPS...QGCTLTIS
BLVSLDPELL AQLSESFHYH AAF...FLY MFVCLCPHA...KNKFSLK
GDFKYCLCAI KN...TL DYLNIPEK...TGFKINIS
LKVHKVLTHTP DDLAVYALAS LLDHKPPGTA AMPGIGAMHH LPRFEGELGSR
89 138

Figure 1 (continued)

SW_ROD_KIME_MOUSE
SW_ROD_KIME_RAT
SW_HUM_KIME_HUMAN
SW_OTHER_KIME_PYRAB
SW_OTHER_KIME_PYRHO
SW_OTHER_KIME_PYRFU
SW_OTHER_KIME_ARATH
SW_OTHER_KIME_METTH
SW_OTHER_KIME_ARCFU
SW_OTHER_KIME_AERPE
SW_OTHER_KIME_SCHPO
SW_OTHER_KIME_YEAST
SW_OTHER_KIME_METJA
PARACOCCLUS
Numbering

SELPPGAGLG SSAAYSVCLA AALLTACEEV SNPLKDGVSU SRWPEEDLKS
SELPPGAGLG SSAAYSVCLA AALLTACEEV TNPLKDRGSI GSWPEEDLKS
SELPPGAGLG SSAAYSVCLA AALLTACEEV PNPLKDGDCV NRWTKEDLEL
SQIPVAGLG SSAAVAVATI GAVSKLLDLE LS...KEE...
SQIPVAGLG SSAAVAVATI GAVSKLLDLE LS...KEE...
SQIPVAGLG SSAAVAVATI GAVSKLLDLE LS...KEE...
SELPGVSGLG SSAALCVALT AALLASSISE KTR...GNW SSLDETNLLEL
MEIPAGSGLG SSAALTVALT GALDRYHGRD HG...PGE...
SEIPIGSGLG SSAAVIVATI AALNAEFGD MD...KEA...
SGIPPRAGLG SSAASMVAYA LSYSAMHGDG LS...AED...
SQVPLGAGLG SSATISVVVA TSLLLAFGNI BPP...SSN. SLQNKALAL
STLPIGAGLG SSASISVSLA LAMAYLGGDI GS...NDL EKLSENKHI
SKIPISCGLG SSASITIGTI KAVSGFYNKE LK...DDE...
TELPAGAGMG SSAATVAATT VLFETLLDRP KT...PEQ...
139 173

SW_ROD_KIME_MOUSE
 SW_ROD_KIME_RAT
 SW_HUM_KIME_HUMAN
 SW_OTHER_KIME_PYRAB
 SW_OTHER_KIME_PYRHO
 SW_OTHER_KIME_PYRFU
 SW_OTHER_KIME_ARATH
 SW_OTHER_KIME_METTH
 SW_OTHER_KIME_ARCFU
 SW_OTHER_KIME_AERPE
 SW_OTHER_KIME_SCHPO
 SW_OTHER_KIME_YEAST
 SW_OTHER_KIME_METJA
 PARACOCCLUS
 Numbering

INKWAFEGER VIHGNPSGVD NAVSTWGGAL RFQ....QGT ..MSSLKSLP
 INKWAFEGER VIHGNPSGVD NSVSTWGGAL RYQ....QKG ..MSSLKRLP
 INKWAFQGER MIHGNPSGVD NAVSTWGGAL RYH....QKG ..ISSLKRSP
 IAKMGHKVEL LVQGASSGID PTVSAIGGFL YTK....QGE ..FEHLP.FV
 IAKLGHKVEL LVQGASSGID PTVSAVGGFL YTK....QKG ..FEPLP.FM
 IAKMGHKTEL LVQGASSGID PTVSAIGGFI FYE....KGK ..FEHLP.FM
 LNKWAFEGEK IHHGKPSGID NTVSAYGNMI KFC....SGE ..ITRLQSNM
 TAARAHREVEV DVQGAASPLD TAISTYGGVL YLDS....QRR ..VRQFE.AD
 IFQMAKQVEI DVQGRASGID PFISTFGGSW LFP....ERR ..KVEMP...
 LYSVAMEGEG IAHGKPSGVD VTIAVRGVVL AYR....RGE NPVDIRPGLT
 IEAWSFLGEC CIHGTSPGID NAVATNGGLI AFR....KAT AHQSAMKEFL
 VNQWAFIGEK CIHGTSPGID NAVATYGNAL LFEKDSHNGT INTNNFKFLD
 IAKLGYMVEK EIQQKASITD TSTITYKGIL EIKNN..KFR KIKGEFEFL
 RFDVRFCER LKHGKAGPID AASVVRGGLV RVGGNG.PGS ISSFDLPEDH
 174 222

SW_ROD_KIME_MOUSE
 SW_ROD_KIME_RAT
 SW_HUM_KIME_HUMAN
 SW_OTHER_KIME_PYRAB
 SW_OTHER_KIME_PYRHO
 SW_OTHER_KIME_PYRFU
 SW_OTHER_KIME_ARATH
 SW_OTHER_KIME_METTH
 SW_OTHER_KIME_ARCFU
 SW_OTHER_KIME_AERPE
 SW_OTHER_KIME_SCHPO
 SW_OTHER_KIME_YEAST
 SW_OTHER_KIME_METJA
 PARACOCCLUS
 Numbering

....SLQILL TNTKV.PRST KALVAVRSR L.TKFFEIVA PLLTSIDAIS
ALQILL TNTKV.PRST KALVAGVRSR L.IKFFEIMA PLLTSIDAIS
ALQILL TNTKV.PRNT RALVAGVRSR L.LKFFEIVA PLLTSIDAIS
ELPIVV GYTGS.SGST KELVAMVRRR Y.EEMPELIE PILESMGKLV
ELPIVV GYTGS.TGST KELVAMVRRR Y.EEMPELVE PILEAMGKLV
ELPIVV GYTGS.SGPT KELVAMVRRR Y.EEMPELIV PILEAMGKVV
PLRMLI TNTRV.GRNT KALVSGVSQR A.VRHPDAMK SVFNAVDSSIS
LGDIVI AHLDY.SGET ARMVAGVAER F.RRFPDIMG RIMDTVESIT
FKFPV INFG..SRST AEMVAKVAEL R.ERHPEVVD KIFDAIDAIS
GVTLIV ADTGV.ERRT RDVVEHVLSI A.DALGEAST YIYRAADLIA
 KPKDLSVMI TDTKQ.PKST KKLVOGVFEL K.ERLPTVID SIIDAIDGIS
 DFP.AIPMLI TYTRI.PRST KDLVARVRL VTEKFPEVMK PILDAMGECA
 K...NCKPLI VYAEKRKKKT AELVNEVAKI E.....NKD EIFKEIDKVI
 DLVAGRGWYV VLHGRPVSGT GECVSAVAAA H...G..RDA ALWDAFACVT
 223 267

SW_ROD_KIME_MOUSE
 SW_ROD_KIME_RAT
 SW_HUM_KIME_HUMAN
 SW_OTHER_KIME_PYRAB
 SW_OTHER_KIME_PYRHO
 SW_OTHER_KIME_PYRFU
 SW_OTHER_KIME_ARATH
 SW_OTHER_KIME_METTH
 SW_OTHER_KIME_ARCFU
 SW_OTHER_KIME_AERPE
 SW_OTHER_KIME_SCHPO
 SW_OTHER_KIME_YEAST
 SW_OTHER_KIME_METJA
 PARACOCCLUS
 Numbering

LECERVLGEM VAAP.....VPEQYLV LEELIDMNQH HLNALGVGHN
 LECERVLGEM AAAP.....VPEQYLV LEELMDMNQH HLNALGVGHA
 LECERVLGEM GEAP.....APEQYLV LEELIDMNQH HLNALGVGHA
 DKAKEVILSK LDE.....EEKFLK LGELMNINHG LLDALGVSTK
 DKAKEVILSK LDE.....EEKLTK LGELMNINHG LLDALGVSTK
 EKAKDVILSN VDK.....EEKFER LGVLMNINHG LLDALGVSTK
 KELAIIQSK DETS.....VTEKEER IKELMEMNQG LLLSMGVSHS
 NTAYRELLRN NTEP.....LGELMNINHG LLDLMGVSTR
 LEASDVG..S AER.....LEELIATNQS LLRAIGVSNP
 REALHAIE..K GDA.....ER LGLIMNAAQG LLSLGLASSL
 KSAVLALTSE SDK.....NSSAKK LGFIVLNRK LLECLGVSHY
 LQGLEIMTKL SKCKGTDDA VETNNELYEQ LLELIRINHG LLVSIGVSHP
 DEALKIK..N KED.....FGKLMTNKE LLKLNSTP
 RALEAALLSG GSP.....DAAITENQR LLERIGVUPA
 268 299

Figure 1 (continued)

SW_ROD_KIME_MOUSE
 SW_ROD_KIME_RAT
 SW_HUM_KIME_HUMAN
 SW_OTHER_KIME_PYRAB
 SW_OTHER_KIME_PYRHO
 SW_OTHER_KIME_PYRFU
 SW_OTHER_KIME_ARATH
 SW_OTHER_KIME_METTH
 SW_OTHER_KIME_ARCFU
 SW_OTHER_KIME_AERPE
 SW_OTHER_KIME_SCHPO
 SW_OTHER_KIME_YEAST
 SW_OTHER_KIME_METJA
 PARACOCCLUS
 Numbering

SLDQLCQVTA AHG.LHSLKT GAG....GG GCGITLLKPG LEQATVEAAK
 SLDQLCQVTA AHG.LHSLKT GAG....GG GCGITLLKPG LERAKVEAAK
 SLDQLCQVTR ARG.LHSLKT GAG....GG GCGITLLKPG LEQPEVEATK
 KLSELVYAAR TAGAIGAKLT GAG....GG GC.MYALAPG KQRE....VA
 KLSELVYAAR TAGAIGAKLT GAG....GG GC.MYALAPG KQRE....VA
 KLSELVYAAR VAGALGAKIT GAG....GG GC.MYALAPN KQRE....VA
 SIEAVILTV KHK.LVSKLT GAG....GG GCVLTLLPTG TVVDK...VV
 ELSMMVYEAR NAGAAGSKIT GAG....GG GS.IIAHCPG CVDD...VV
 EIDRTIAELE RMG.LNAKIT GAG....GG GC.IFGLFKG EKPK.....
 EIEITLVYRMR SAGALGAKLT GAG....WG GCVIGLFKEG EVERG...LE
 SIDRVLOATK SIG..WTKLT GAG....GG GCTITLLTPE KEEEFKLCCK
 GLELIKNSD DLRIGSTKLT GAG....GG GCSLTLLRRD ITQEQIDSEFK
 KLDRIVDIGN RFG.FGAKLT GAG....GG GCVIILVNEE KEKE.....
 ATQALVQIE EAG.GAAKIC GAGSVRGDGH GAVLVRIIDA QAMASVMARH
 300 348

SW_ROD_KIME_MOUSE
 SW_ROD_KIME_RAT
 SW_HUM_KIME_HUMAN
 SW_OTHER_KIME_PYRAB
 SW_OTHER_KIME_PYRHO
 SW_OTHER_KIME_PYRFU
 SW_OTHER_KIME_ARATH
 SW_OTHER_KIME_METTH
 SW_OTHER_KIME_ARCFU
 SW_OTHER_KIME_AERPE
 SW_OTHER_KIME_SCHPO
 SW_OTHER_KIME_YEAST
 SW_OTHER_KIME_METJA
 PARACOCCLUS
 Numbering

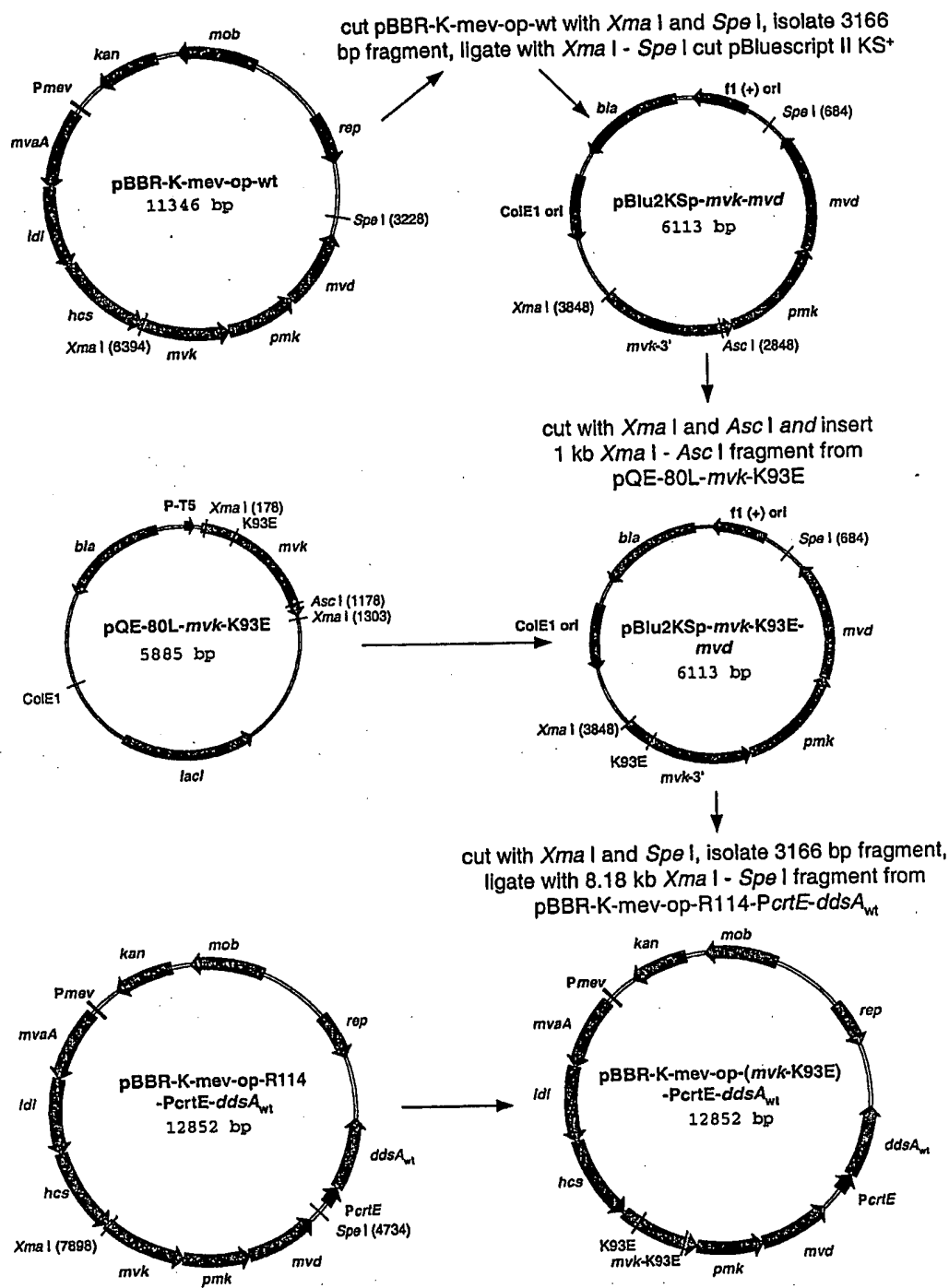
QALTSCG.FD CWETSIGAPG VSTHSAAVG DPVRQAL.GL
 QALTSCG.FD CWETSIGAPG VSMHSATSIE DPVRQAL.GL
 QALTSCG.FD CLETSIGAPG VSIHSATSLD SRVQALDGL
 TAIKLAG.GT PMITRISKEG LRIEEVRE..
 TAIKLAG.GI PMITRVREG LRIEVS... ..
 TAIKLAG.GT PMITEISREG LKIEEVK... ..
 EELESSG.FQ CFTALIGNG AQICY..... ..
 TALNRN..WK AMRAEFSVKG LI..... ..
G SFIVEPEKEG VRIE..... ..
 SVVESS..Q AFTASIAEEG ARLEEF..... ..
 ESLLAHK.NS IYDVQLGGPG VSVVTDSDSF FPQYESDFDF KKLNLKSKFN
 KKLQDDFSYE TFEITDLGGTG CCLLSAKNLN KDLKIKSLVF QLFENKTTTK
LLKELNKED VRIFNCRMMN
 PDLWAPLPM SRTGAAPGPA PRAQPLPGQG
 349 378

SW_ROD_KIME_MOUSE
 SW_ROD_KIME_RAT

.....

SW_HUM_KIME_HUMAN	.....
SW_OTHER_KIME_PYRAB	.....
SW_OTHER_KIME_PYRHO	.....
SW_OTHER_KIME_PYRFU	.....
SW_OTHER_KIME_ARATH	.....
SW_OTHER_KIME_METTH	.....
SW_OTHER_KIME_ARCFU	.....
SW_OTHER_KIME_AERPE	.....
SW_OTHER_KIME_SCHPO	KYYI.....
SW_OTHER_KIME_YEAST	QQIDDLPLPG NTNLPWTS
SW_OTHER_KIME_METJA	.....
PARACOCCUS	.....

Figure 2.



**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☒ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.